

CADIA VALLEY OPERATIONS MOD 10 - AIR QUALITY REVIEW

Job **Cadia Valley Operations –Mod 10 Air Quality Review**
 Client **Cadia Valley Operations**
 Report no.
 Date **14/2/2018**
 To **Andrew Wannan**
 From **Ronan Kellaghan**

1. Introduction

Cadia Holdings Pty Limited (CHPL), a wholly owned subsidiary of Newcrest Mining Limited, is seeking a modification to the Cadia East Project Approval (Project Approval 06_0295). The Modification (referred to as Modification (Mod) 10) seeks approval for the relocation of the approved molybdenum recovery plant.

Figure 1 (attached) shows the General Arrangement for Modification 10, including the relocated molybdenum recovery plant.

The Modification does not seek any change to the approved molybdenum recovery plant process or any change to underground mining methods or any other surface infrastructure.

Ramboll Environ has been commissioned by CHPL to prepare an Air Quality Review for the Modification.

2. Assessment of Dust emissions

During construction of the molybdenum recovery plant, the primary emission to air would be dust or particulate matter¹. However, given the scale and nature of the construction phase, dust emissions are expected to be relatively minor, short lived and easily controlled through commonly applied dust mitigation measures. This would be achieved by watering of unsealed haul roads and disturbed areas during the construction phase, consistent with the mitigation measures proposed in Holmes Air Sciences (2009).

Dust emissions during the operation phase would be minimal. Raw material concentrate would be delivered to the plant in the form of a slurry and therefore dust emissions are not expected. Following filtering and drying, the molybdenum concentrate, with an approximate moisture content of 3%, would be stored in a hopper, prior to bagging and sealing.

¹ Air quality criteria for particulate matter are given for particle size metrics including "total suspended particulate matter" (TSP), PM₁₀ and PM_{2.5} (PM with an aerodynamic diameter of less than 10 µm and 2.5 µm respectively).

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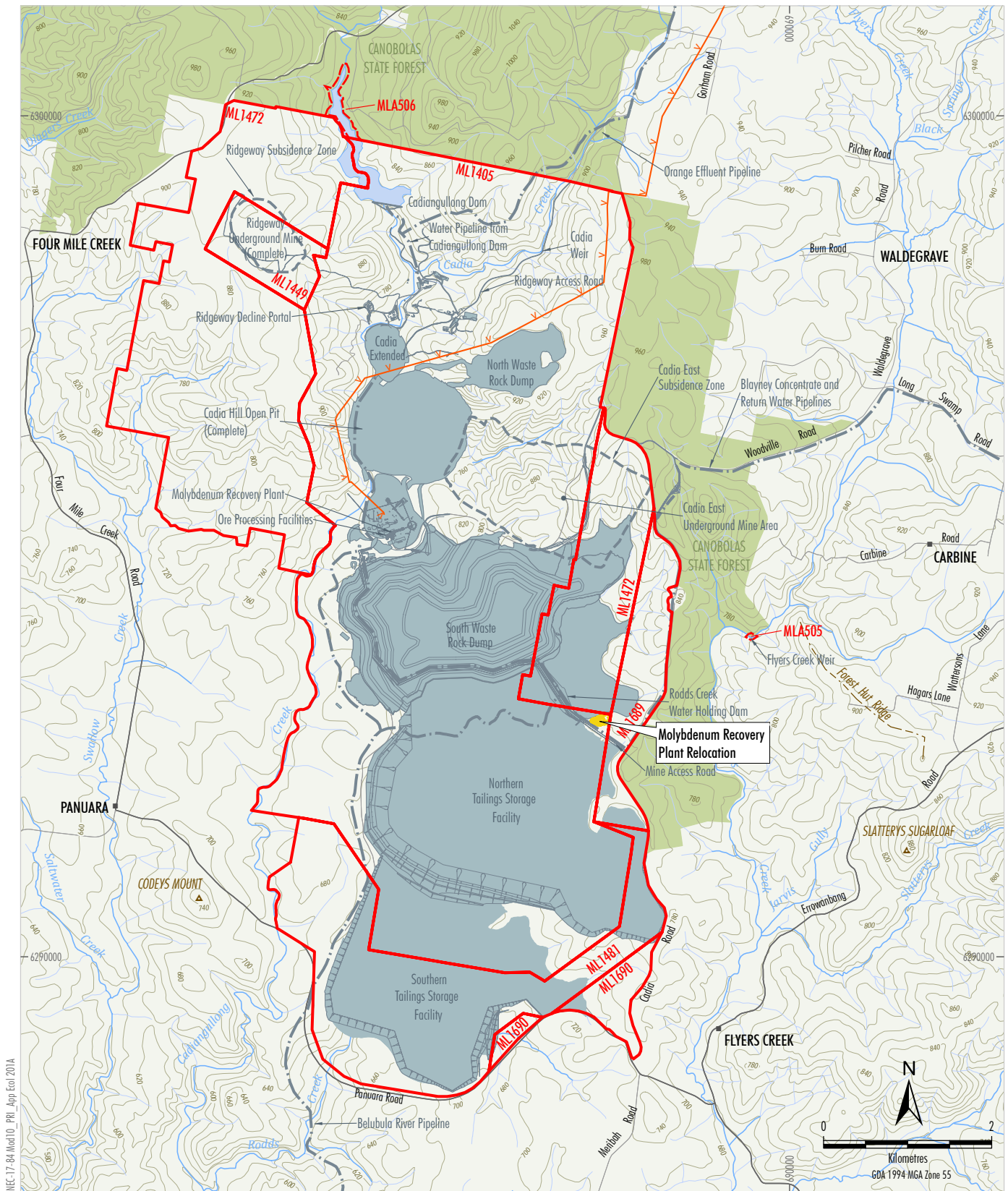


Figure 1

Sealed bags would be stored on pallets for road transportation to market (consistent with the currently approved molybdenum recovery plant). Dust emissions from product handling are therefore not expected.

Product transportation would require approximately four B-double trucks per week and therefore wheel generated dust is not considered a significant source of potential dust emissions.

3. Conclusion

A proposed modification to relocate the molybdenum recovery plant has been reviewed for potential air quality impacts. The only risk identified was the potential for dust (particulate matter) emissions during construction of the plant, which would be easily controlled through commonly applied dust mitigation measures. There are no significant sources of dust emissions during operation of the plant, while construction dust emissions would be relatively minor, short lived and easily controlled through commonly applied dust mitigation measures.

4. References

Holmes Air Sciences (2009). Cadia East Project Air Quality Assessment.

NSW EPA (2016). Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales, minor revisions November 2016, published January 2017. NSW Environment Protection Authority.